



41426-FA-PCT-US  
SEQUENCE LISTING

<110> Israeli, Ron S.

Heston, Warren D.W.

Fair, William R.

<120> PROSTATE-SPECIFIC MEMBRANE ANTIGEN AND USES THEREOF

<130> 1769/41426-FA-PCT-US

<140> 10/751,346

<141> 1998-01-02

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agatattctg aatttttaatt tctcttgcct actttcactg aaaaagagtc atgcaaacag	180
atttttaagt tgcaaaccac ttgcaaaaata tttttttatc caacttcaat gatagggtatt	240
gctgttaatt ctaagatatg cattaattgt ttcaactaat ggggtgtcaaa cgagatgttc	300
tgaaaatgaa ggcaaaaagg gatccacctt ctactttcat aaagttttcta tcttcctctg	360
ctgactcaaa taagcattta atacatttta taacgaatta attatgaata atatttcaaa	420
taaataaatt atttccaagt gttgaaggaa attcagactt ctaatttgct ctgattctga	480
aactaaaaca aatgctctgt gagagtttgc gtttccagtg aagtagcgtg agaaatccaa	540
gtcagacagc tacatgaaac tacatttacc agctctctgc cagacaccag tgcacgatag	600

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attaaaatac atgattggac gcaaacggaa ataagattcc acctgtgcat aaaacagaaa	900
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aaagaaacat tcccccccat ttattatttt ttcaaatacc ttctatgaaa taatgttcta	180
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ggttatatcc cgggggttaa ttcgagcatt ggaatttggc cagtgtagat gtttagagtg      240
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 acaattaatc aactagcatt ctaaatttca attccagatc tattacctta atatggtagc 780  
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 gtgtaagaaa cgcttcaggt agtttaaatt taaggct 877

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&lt;211&gt; 893

&lt;212&gt; DNA

&lt;213&gt; HOMO SAPIENS

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&lt;213&gt; HOMO SAPIENS

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aaaagaaaca ttccccccca tttattatth tttcaaatac cttctatgaa ataatgttct      180
atccctctct aaatattaat agaaatcaat attattggaa ctgtgaatac ctttaatatc      240
tcattatccg gtgtcaacta ctttcctatg atgttgagtt actggtttag aagtcgggaa      300
ataatgctgt aaannnnnna gttagtctac acaccaatat caaatatgat atacttgtaa      360
acctccaagc ataaaaagag atactttata aaagagggtc tttttttctt tttttttttt      420
ccagatggag tttcactcct gtcaggcagg cngagtgcag tggtgccatc tcggctcact      480
gcaacctcca cctcccatgt tcaagggatt ctccctcctc agtctcctga gtagctggga      540
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ctcccaaagt tgtagaatta cacgtgtgag gcaactgctc ggccaggaga tacatttttg      720
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tatgcatttg acccagcaat ttttattggt acttaatgat tatatctcaa ttgatcaggt      840
tgaactctgt gcgaagaatt tgtgtgtgga catttgagag gacagtttgg aggcaaggta      900
ttttagtaga tttaaagaat ttgaatcttg tttgcaagtt ggggcatata ctgagaaaga      960
gaagacaatg cagataaatt gatatathta ttatgatgta tgttcaatat gaaagatcac     1020
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aagagtccat ttctattagg taagttcctt tagtcctttt attactgggc actcttaatt     1140
acatgtagct tgaaatatgt ccagtttgag cagtgaactg aaaatgtcat gtgattaagt     1200
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ttctctaata attatacg                                     1278

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<210> 123

<211> 1240

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<222> (1090)..(1090)

<223> n=any nucleotide

<220>

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&lt;222&gt; (1166)..(1171)

&lt;223&gt; n=any nucleotide

&lt;220&gt;

&lt;221&gt; misc\_feature

&lt;222&gt; (1210)..(1210)

&lt;223&gt; n=any nucleotide

&lt;400&gt; 123

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atcttttatg tcagtagagg gtgaatgata cttcaggatt ttgatgatag tatcagatac      120
ccagcactat gctagaagtt gtgaagaatt cacgagatga ataaatcaca gattctgtcc      180
tcaaaatggt tagatctatt caggaaacaa agctaaaaaa accccaccaa taactaaaaa      240
tcaaccaaat gaaaaacaac aatcataaaa taagtaagta cctatagaaa gaaaagctca      300
gaggaggtaa aaagataact cttccaaaag gaatactata tactgtaaac tgtgtactga      360
tagaaggaag aattagaaan nnnnnnntgt aagtggcata cataactaagc tagtgtgaac      420
acaagcctaa atatgtagtt gottcacaga aggttagaag taaattaacc tcatgaattt      480
cttgagagaa cttgtaagga ctaagctttc gattttggag aaagatttta ataccataa      540
aaaagtacct ttgtttggta atctcaatca ttataatagt gcttagataa tacctaggaa      600
caaattaaat attaaattta ctttaaaaaa aagtacatga ttggggaatc acaactggcc      660
ttactagatt ctctnnnnnn atatgcactg aaaagaatga aaaacactga accaaatatn      720
tgttttttta agttttaaata taaattggaa aaaaatagta aggaatatca gaagcaaaaa      780
aataaaatga aagcaagaat cctcagaggt agcacgaaat ttggctttgc ttagatggat      840
ctatcaaagc tatggcccat gaaaaggatt caggagttag tttaaagctg gttcacataa      900
tggaatctag cagaagactg tgcataaagg tgggtctaaga acaacaatat cctgaccagg      960
tgagggggct cacnctnaat nccagcactt tgggagccca aggtgggtgg atcacgaggt     1020
caggagtttg agaccagcct gaccaacatg gtgaaaccgc gtctctacta aaaatagaaa     1080
aattagccgn gcctacgtgc ttctaatacc agctgaactc aggagactga gacaggagaa     1140
tcacttgaac ccagcatgca agcttnnnnn ngccactgca ctccagctag ggtgcaaaaa     1200
aaaaaaaaan gacacattac tcaggttaagg taatcaataa                        1240

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&lt;210&gt; 124

&lt;211&gt; 783

&lt;212&gt; DNA

&lt;213&gt; HOMO SAPIENS

&lt;400&gt; 124

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atgtgtagaa tcattttctt aaaactttat gaataccatt attttcttgt attctgtgac      120
atgccacct tacagagagg acacatttac taggttatat cccgggggta aattcgagca      180
ttggaatttg gccagtgtag atgttttagag tgaacagaac aaatttttct gtgcttacag      240
gttatggctg tggcctacaa gaagcatgca ctgggtttat tattaacttt cagtatcttt      300
gttttaaata ttttctacaa aaatgtttac taaattaaat tgtagtatga attgttataa      360
ataatgaggg aaaacaattt acacatagca aatttaaaaa ttactgtcat ttgatttggt      420
aatatatttt tctcttttagt gggaaattaa attttaaaaa attccctttc gactgtagaa      480
caaataggaa tttggcctgt ggggtctact tgcttattat atttgtaagc tagtggtagg      540
aaatagcaaa tgctcactac cactaataag aacatttcta aatctgatgt tctgaggatt      600
tttagagctt atagtagcaa aaagaaaagg gaaattctat ccgagatgtc ctttggtgta      660
ggcctaataa gaaaagggtg aagataaagt tctggtactc atttaagtgt aatattgaaa      720
attgatatta ccgaatctgg aacaaccaat ttaaataaag gaaagaaaga cactgtgttt      780
tct                                                                    783

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&lt;210&gt; 125

&lt;211&gt; 781

&lt;212&gt; DNA

&lt;213&gt; HOMO SAPIENS

&lt;220&gt;

&lt;221&gt; misc\_feature

&lt;222&gt; (504)..(504)

&lt;223&gt; n=any nucleotide

&lt;400&gt; 125

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agaaaacaca gtgtctttct ttccttattt taaattgggt gttccagatt cggtaatatc      60
aattttcaat ttacacttaa atgagtagca gaactttatc ttcaaccttt tctcattagg      120
cctacaacaa aggacatctc ggatagaatt tcccttttct ttttgctact ataagctcta      180

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41426-FA-PCT-US

aaaatcctca gaacatcaga tttagaaatg ttcttattag tggtagtgag catttgctat	240
ttcctaccac tagcttacia atataataag caagtagacc ccacaggcca aattcctatt	300
tgttctacag tcgaaagga attttttaaa atttaatttc ccactaaaga gaaaaatata	360
ttaacaaatc aaatgacagt aatttttaaa tttgctatgt gtaaattggt ttccctcatt	420
atttataaca attcatacta caatttaatt tagtaaacad ttttgtagaa aatatttaaa	480
acaaagatac tgaaagttaa tatnaaaccc agtgcattgt tcttgtaggc cacagccata	540
acctgtaagc acagaaaaat ttgttctgtt actctaaaca tctacactgg ccaaattcca	600
atgctcgaat ttaaccccggt gatataacct agtaaattgt tcctctctgt aagggtgggca	660
tgtcacagaa tacaagaaaa taatggtatt cataaagttt taagaaaatg attctacaca	720
tgtaaaaccc actataactt ttacattgg ggagagaaa aaaagagata atttttacct	780
t	781

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 <213> HOMO SAPIENS

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 <223> n=any nucleotide

<220>  
 <221> misc\_feature  
 <222> (900)..(907)  
 <223> n=any nucleotide

&lt;220&gt;

&lt;221&gt; misc\_feature

&lt;222&gt; (917)..(917)

&lt;223&gt; n=any nucleotide

&lt;220&gt;

&lt;221&gt; misc\_feature

&lt;222&gt; (955)..(955)

&lt;223&gt; n=any nucleotide

&lt;220&gt;

&lt;221&gt; misc\_feature

&lt;222&gt; (1009)..(1009)

&lt;223&gt; n=any nucleotide

&lt;400&gt; 126

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tttagtactt	aaattttcca	acatgggtgt	tgcttggtat	tttatcagta	taaaatagaa		120
gagtggttct	gttctggaat	ttagtatata	catgagtatc	tagtgatgt	cagccatgaa		180
aatgaacctt	tcagatgttt	aacttcaggg	aacctaattg	agtcattgct	ccagacattg		240
ttgctttgaa	cccactatat	tnnnnnnnct	cgggcaatga	ctcagtgtgg	caaggatact		300
actgcaggcc	tgtttctgga	aggcactgga	ctcctctgat	gcaaactttg	gccaggggact		360
ccttgatagc	tcttaaatag	atgctgcacc	aacactctct	ttcttttctc	tctttttctt		420
tattcaatat	tagactacaa	gcagtctaag	gacttctcag	ggtttctagc	tctctctcat		480
ttcacacatg	ctttcctagt	aatctctact	catatatctt	actgctacgc	tggggccaga		540
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nnnnnnnttt	caccatngct	gatcaggctg	gtctcgaact	cctgaccgca	gtgantccgc		960
cctccttggc	ctcccaaagt	gctgagatta	caggcatgag	tactgcgnc	cagccaccat		1020

tattctctag aggtgagaga acactggctc ttctaacaag ttgaaatttg atagagacc 1079

<210> 127

<211> 1977

<212> DNA

<213> HOMO SAPIENS

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<220>

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<221> misc\_feature

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<223> n=any nucleotide

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attcaaatta ttgataagaa tttgatctgc cttaccagta tctagtagta aatctaaaag 300  
cgctttccag agcatgtgct gttgatagag cttgatgtct aactctctga aattttccat 360  
tcttatttgt ctactggta tatagttatt ttttactact ttcatacacc tactaagaag 420  
acaggaggat caaagatagg atttcattta gaatgcctaa agcttcacgt attttaattc 480  
agaataagat tcaggcagac caccagtata tgccatgggc cctgggtatc tttcagcagg 540  
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aaaacaatat acttttacta aacagctaca gagagacaaa tgtgtttcca gacaaactta 720  
agagactgag tgttcaaact gaataatctc gaccttaatt gtaactatat tttatgaaat 780  
ccagctgtaa ggcaaaaaca gacttctttg ggccctaccac gggcattttg ttcctgttan 840  
nnntactcca aaccttaaac ccacgtccac ttaaataatg gcctggaaat aaatgtcatt 900  
atctgatatt atactgagat gtttagttat gaaatcaaaa gtggagaatt tcaatctgtc 960  
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agaattcact tgaacctggg aggtagagat tgcggtgaag cgagatcacg tcattgcact 1920

ccagcctggg caaaaagagc aaaacttagt ctcaaaaaaa aaaanncaaa gaaaaaa

1977

&lt;210&gt; 128

&lt;211&gt; 750

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 128

Met Trp Asn Leu Leu His Glu Thr Asp Ser Ala Val Ala Thr Ala Arg  
1 5 10 15Arg Pro Arg Trp Leu Cys Ala Gly Ala Leu Val Leu Ala Gly Gly Phe  
20 25 30Phe Leu Leu Gly Phe Leu Phe Gly Trp Phe Ile Lys Ser Ser Asn Glu  
35 40 45Ala Thr Asn Ile Thr Pro Lys His Asn Met Lys Ala Phe Leu Asp Glu  
50 55 60Leu Lys Ala Glu Asn Ile Lys Lys Phe Leu Tyr Asn Phe Thr Gln Ile  
65 70 75 80Pro His Leu Ala Gly Thr Glu Gln Asn Phe Gln Leu Ala Lys Gln Ile  
85 90 95Gln Ser Gln Trp Lys Glu Phe Gly Leu Asp Ser Val Glu Leu Ala His  
100 105 110Tyr Asp Val Leu Leu Ser Tyr Pro Asn Lys Thr His Pro Asn Tyr Ile  
115 120 125Ser Ile Ile Asn Glu Asp Gly Asn Glu Ile Phe Asn Thr Ser Leu Phe  
130 135 140Glu Pro Pro Pro Pro Gly Tyr Glu Asn Val Ser Asp Ile Val Pro Pro  
145 150 155 160Phe Ser Ala Phe Ser Pro Gln Gly Met Pro Glu Gly Asp Leu Val Tyr  
165 170 175Val Asn Tyr Ala Arg Thr Glu Asp Phe Phe Lys Leu Glu Arg Asp Met  
180 185 190

## 41426-FA-PCT-US

Lys Ile Asn Cys Ser Gly Lys Ile Val Ile Ala Arg Tyr Gly Lys Val  
 195 200 205

Phe Arg Gly Asn Lys Val Lys Asn Ala Gln Leu Ala Gly Ala Lys Gly  
 210 215 220

Val Ile Leu Tyr Ser Asp Pro Ala Asp Tyr Phe Ala Pro Gly Val Lys  
 225 230 235 240

Ser Tyr Pro Asp Gly Trp Asn Leu Pro Gly Gly Gly Val Gln Arg Gly  
 245 250 255

Asn Ile Leu Asn Leu Asn Gly Ala Gly Asp Pro Leu Thr Pro Gly Tyr  
 260 265 270

Pro Ala Asn Glu Tyr Ala Tyr Arg Arg Gly Ile Ala Glu Ala Val Gly  
 275 280 285

Leu Pro Ser Ile Pro Val His Pro Ile Gly Tyr Tyr Asp Ala Gln Lys  
 290 295 300

Leu Leu Glu Lys Met Gly Gly Ser Ala Pro Pro Asp Ser Ser Trp Arg  
 305 310 315 320

Gly Ser Leu Lys Val Pro Tyr Asn Val Gly Pro Gly Phe Thr Gly Asn  
 325 330 335

Phe Ser Thr Gln Lys Val Lys Met His Ile His Ser Thr Asn Glu Val  
 340 345 350

Thr Arg Ile Tyr Asn Val Ile Gly Thr Leu Arg Gly Ala Val Glu Pro  
 355 360 365

Asp Arg Tyr Val Ile Leu Gly Gly His Arg Asp Ser Trp Val Phe Gly  
 370 375 380

Gly Ile Asp Pro Gln Ser Gly Ala Ala Val Val His Glu Ile Val Arg  
 385 390 395 400

Ser Phe Gly Thr Leu Lys Lys Glu Gly Trp Arg Pro Arg Arg Thr Ile  
 405 410 415

Leu Phe Ala Ser Trp Asp Ala Glu Glu Phe Gly Leu Leu Gly Ser Thr  
 420 425 430

Glu Trp Ala Glu Glu Asn Ser Arg Leu Leu Gln Glu Arg Gly Val Ala  
 435 440 445

## 41426-FA-PCT-US

Tyr Ile Asn Ala Asp Ser Ser Ile Glu Gly Asn Tyr Thr Leu Arg Val  
 450 455 460

Asp Cys Thr Pro Leu Met Tyr Ser Leu Val His Asn Leu Thr Lys Glu  
 465 470 475 480

Leu Lys Ser Pro Asp Glu Gly Phe Glu Gly Lys Ser Leu Tyr Glu Ser  
 485 490 495

Trp Thr Lys Lys Ser Pro Ser Pro Glu Phe Ser Gly Met Pro Arg Ile  
 500 505 510

Ser Lys Leu Gly Ser Gly Asn Asp Phe Glu Val Phe Phe Gln Arg Leu  
 515 520 525

Gly Ile Ala Ser Gly Arg Ala Arg Tyr Thr Lys Asn Trp Glu Thr Asn  
 530 535 540

Lys Phe Ser Gly Tyr Pro Leu Tyr His Ser Val Tyr Glu Thr Tyr Glu  
 545 550 555 560

Leu Val Glu Lys Phe Tyr Asp Pro Met Phe Lys Tyr His Leu Thr Val  
 565 570 575

Ala Gln Val Arg Gly Gly Met Val Phe Glu Leu Ala Asn Ser Ile Val  
 580 585 590

Leu Pro Phe Asp Cys Arg Asp Tyr Ala Val Val Leu Arg Lys Tyr Ala  
 595 600 605

Asp Lys Ile Tyr Ser Ile Ser Met Lys His Pro Gln Glu Met Lys Thr  
 610 615 620

Tyr Ser Val Ser Phe Asp Ser Leu Phe Ser Ala Val Lys Asn Phe Thr  
 625 630 635 640

Glu Ile Ala Ser Lys Phe Ser Glu Arg Leu Gln Asp Phe Asp Lys Ser  
 645 650 655

Asn Pro Ile Val Leu Arg Met Met Asn Asp Gln Leu Met Phe Leu Glu  
 660 665 670

Arg Ala Phe Ile Asp Pro Leu Gly Leu Pro Asp Arg Pro Phe Tyr Arg  
 675 680 685

His Val Ile Tyr Ala Pro Ser Ser His Asn Lys Tyr Ala Gly Glu Ser  
 690 695 700

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Phe Pro Gly Ile Tyr Asp Ala Leu Phe Asp Ile Glu Ser Lys Val Asp  
 705 710 715 720

Pro Ser Lys Ala Trp Gly Glu Val Lys Arg Gln Ile Tyr Val Ala Ala  
 725 730 735

Phe Thr Val Gln Ala Ala Ala Glu Thr Leu Ser Glu Val Ala  
 740 745 750